

ATTACHMENT J1

# Tobyhanna Army Depot Electrical Distribution System

---

## TABLE OF CONTENTS

<b>TOBYHANNA ARMY DEPOT ELECTRICAL DISTRIBUTION SYSTEM .....</b>	<b>1</b>
<b>J1 TOBYHANNA ARMY DEPOT ELECTRICAL DISTRIBUTION SYSTEM.....</b>	<b>3</b>
J1.1 TOBYHANNA ARMY DEPOT OVERVIEW .....	3
J1.2 ELECTRICAL DISTRIBUTION SYSTEM DESCRIPTION .....	3
J1.2.1 ELECTRICAL DISTRIBUTION SYSTEM FIXED EQUIPMENT INVENTORY .....	3
J1.2.1.1 SYSTEM DESCRIPTION .....	3
J1.2.1.2 POINTS OF DEMARCATION.....	4
J1.2.1.3 CONDITION ASSESSMENT .....	5
J1.2.1.4 INVENTORY .....	6
J1.2.2 ELECTRICAL DISTRIBUTION SYSTEM NON-FIXED EQUIPMENT AND SPECIALIZED TOOLS.....	8
J1.2.3 ELECTRICAL DISTRIBUTION SYSTEM MANUALS, DRAWINGS, AND RECORDS .....	9
J1.3 SPECIFIC SERVICE REQUIREMENTS .....	9
J1.3.1 DIGGING PERMITS .....	9
J1.3.1.1 CONTRACTOR-PROVIDED PERMITS .....	9
J1.3.1.2 TOBYHANNA ARMY DEPOT-PROVIDED PERMITS .....	9
J1.3.2 INSPECTION AND MAINTENANCE PROGRAM.....	10
J1.3.3 EMERGENCY RESPONSE .....	10
J1.3.4 METERS.....	10
J1.3.4.1 METER READING.....	10
J1.3.5 FIRE CONTROL AND SAFETY .....	10
J1.3.6 RESTRICTED ACCESS .....	10
J1.3.7 CRISIS SITUATIONS .....	10
J1.4 CURRENT SERVICE ARRANGEMENT.....	11
J1.5 SECONDARY METERING .....	11
J1.5.1 EXISTING METERS.....	11
J1.5.2 REQUIRED NEW SECONDARY METERS .....	11
J1.6 MONTHLY SUBMITTALS .....	12
J1.7 ENERGY AND WATER EFFICIENCY AND CONSERVATION PROJECTS.....	13
J1.8 SERVICE AREA .....	13

J1.9 OFF-INSTALLATION SITES ..... 13

J1.10 SPECIFIC TRANSITION REQUIREMENTS ..... 13

J1.11 GOVERNMENT RECOGNIZED SYSTEM DEFICIENCIES ..... 13

**LIST OF TABLES**

TABLE 1 - POINTS OF DEMARCATION ..... 4

TABLE 2 - FIXED INVENTORY ..... 6

TABLE 3 - SPARE PARTS..... 8

TABLE 4 - SPECIALIZED VEHICLES AND TOOLS..... 8

TABLE 5 - MANUALS, DRAWINGS, AND RECORDS..... 9

TABLE 6 - EXISTING SECONDARY METERS ..... 11

TABLE 7 - NEW SECONDARY METERS..... 11

TABLE 8 - SERVICE CONNECTIONS AND DISCONNECTIONS ..... 13

TABLE 9 - SYSTEM DEFICIENCIES ..... 14

# **J1 Tobyhanna Army Depot Electrical Distribution System**

---

## **J1.1 Tobyhanna Army Depot Overview**

Tobyhanna Army Depot (Depot or TYAD) is located in northeastern Pennsylvania, near the town of Stroudsburg and covers 1,300 acres, 400 of which are allocated to the industrial complex. TYAD is the largest full-service communications-electronics maintenance complex in the Department of Defense. The Depot's mission includes the design, manufacture, repair and overhaul of hundreds of communications and electronics systems. System categories supported by TYAD include communications, command and control, surveillance and target acquisition, airborne electronics, intelligence and electronic warfare electronics support equipment and power systems.

## **J1.2 Electrical Distribution System Description**

### **J1.2.1 Electrical Distribution System Fixed Equipment Inventory**

The Tobyhanna Army Depot electrical distribution system consists of all appurtenances physically connected to the distribution system between the points of demarcation separating Government ownership of the distribution system from the electric supplier and separating the distribution system from end-users. The system may include, but is not limited to, circuit breakers, transformers, circuits, protective devices, utility poles, ductbanks, switches, street lighting fixtures, and other ancillary fixed equipment. The actual inventory of items sold will be conveyed to the Contractor using the Bill of Sale (sample shown in Attachment J42) at the time the system is transferred.

The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the distribution system. The description and inventory were developed based on best available data.

The Offeror shall base its proposal on site inspections, information in the technical library, and other pertinent information, as well as the following description and inventory. If after award the Offeror identifies additional inventory not listed in Paragraph J1.2.1.4, the Offeror may submit to the Contracting Officer a request for an equitable adjustment. If the Offeror determines that the inventory listed in Paragraph J1.2.1.4 is overstated, the Offeror shall report the extent of the overstatement to the Contracting Officer, who will determine an equitable adjustment.

#### **J1.2.1.1 System Description**

Tobyhanna Army Depot currently purchases bulk electrical power from Pennsylvania Power & Light Company (PPL) at 69 kV at a single delivery point. The delivery point is the Army-owned Tobyhanna Substation, originally constructed in 1981 and upgraded in 2000. The substation has two 12/16/20 MVA transformers; both were installed during the 2000 upgrade. The TYAD substation consists of a two-bay 69-kV structure, two power transformers, and a four bay 12.47-

kV structure containing seven circuit breakers (four feeder breakers, one bus tie breaker, and two transformer breakers).

The electric distribution system at TYAD consists of both overhead and underground circuits. The majority of the overhead circuits are installed on single wood poles with conventional type insulators on wood crossarms. Pole-mounted distribution transformers are installed near individual load centers. The underground portion of the electric network, located in the industrial area, consists of both ductbank installations and direct-buried cable. Pad-mounted distribution transformers are located near load centers. A project currently funded is expected to be completed by the time of a decision on privatization will add two miles of duct bank and 26 manholes to the industrial area of TYAD.

Many of the industrial area buildings have medium voltage transformers located inside the buildings. These are generally dry-type, primary unit substation transformers; none are oil-filled but two are silicone insulated. There are no interior transformers located inside vaults. Interior transformers are generally located on the first floor enclosed by a chain link fence. All were replaced in the early 1980s and generally supply a separate low voltage panel rather than a secondary section of the unit transformer. The Army will not relocate these transformers to outside locations due to cost and space constraints.

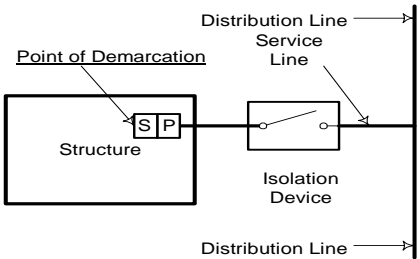
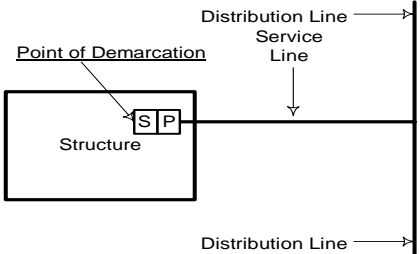
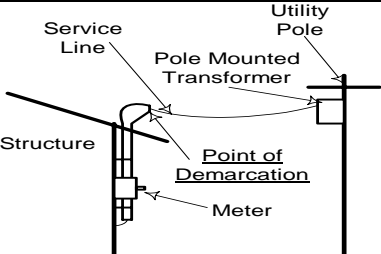
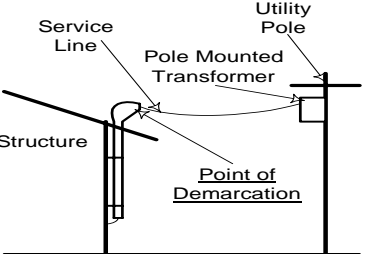
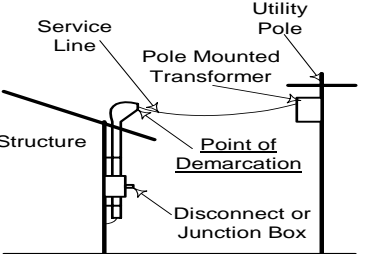
#### J1.2.1.2 Points of Demarcation

The point of demarcation is defined as the point on the distribution system where ownership changes from the Grantee to the building owner. This point of demarcation will typically be at the point the utility enters a building structure or the load side of a transformer within a building structure. The table below identifies the type and general location of the point of demarcation with respect to the building for each scenario. During the operation and maintenance transition period, concurrence on specific demarcation points will be documented during the joint inventory of facilities.

**Table 1** identifies the type of service and general location of the points of demarcation with respect to each building served by the distribution system.

**TABLE 1**  
 Points of Demarcation  
*Electrical Distribution System - Tobyhanna Army Depot, Pennsylvania*

Point of Demarcation	Applicable Scenario	Sketch
Point of demarcation is the structure wall.	Pad-mounted transformer located outside of structure with underground service to the structure regardless of the presence of a meter.	

Point of Demarcation	Applicable Scenario	Sketch
Secondary terminal of the transformer inside of the structure	Transformer located inside structure and an isolation device is in place with or without a meter  Note: Utility Owner will be granted 24-hour access to transformer room.	
Secondary terminal of the transformer inside of the structure	Transformer located inside structure with no isolation device in place.  Note: Utility Owner will be granted 24-hour access to transformer room.	
Point of demarcation is the point where the overhead conductor is connected to the weather head.	Electric meter is connected to the exterior of the building on an overhead secondary line.	
Point of demarcation is the point where the overhead conductor is connected to the weather head.	Pole-Mounted Transformer located outside of structure with secondary attached to outside of structure with no meter.	
Point of demarcation is the point where the overhead conductor is connected to the weather head.	Service may be overhead or underground. A disconnect switch or junction box is mounted to the exterior of the structure with no meter.	

### J1.2.1.3 Condition Assessment

The condition of the electric distribution facilities is considered good. The overhead facilities are older than the underground facilities and therefore are nearer the end of their design lives.

Tobyhanna Army Depot will require that overhead facilities be replaced with underground facilities as they are replaced due to obsolescence.

#### **J1.2.1.4 Inventory**

**Table 2** provides an inventory of the electrical distribution system components being privatized. The system will be sold in an “as is, where is” condition without any warrant, representation, or obligation on the part of the Government to make any alterations, repairs, or improvements. All ancillary equipment attached to and necessary for operating the system, though not specifically mentioned here in, is considered part of the purchased utility.

**TABLE 2**  
Fixed Inventory  
*Electrical Distribution System - Tobyhanna Army Depot, Pennsylvania*

<b>Component</b>	<b>Quantity</b>	<b>Unit</b>	<b>Approximate Year of Construction</b>
<b><i>Overhead</i></b>			
3 Phase - Open Wire, Small	5.15	MI	1975
1 Phase – Open Wire	0.50	MI	1975
Secondary	1.06	MI	1975
Gang-Operated Air Break Switches	10	EA	1975
<b><i>Underground</i></b>			
3 Phase - Large	2.93	MI	1984
3 Phase - Small	2.03	MI	1981
1 Phase	0.80	MI	1981
Secondary	0.13	MI	1981
Ductbank (under pavement)	2.04	MI	2005
Manholes	26	EA	2005
Primary sect. switches	20	EA	1982
<b><i>Transformers, Pole Mount</i></b>			
15 kVA & smaller	6	EA	1964
25 kVA	8	EA	1967
37.5 kVA	9	EA	1968
50 kVA	18	EA	1967
75 kVA	7	EA	1968
100 kVA	3	EA	1968

Component	Quantity	Unit	Approximate Year of Construction
<b><i>Transformers, Pad Mount</i></b>			
1 Phase – 25 kVA	6	EA	1996
1 Phase – 50 kVA	5	EA	1990
1 Phase – 100 kVA	1	EA	1990
3 Phase – 150 kVA	11	EA	1990
3 Phase – 225 kVA	5	EA	1990
3 Phase – 300 kVA	6	EA	1990
3 Phase – 500 kVA	5	EA	1990
3 Phase – 750 kVA	1	EA	1990
3 Phase – 1500 kVA	1	EA	1990
3 Phase – 2000 kVA	1	EA	1990
3 Phase – 3000 kVA	1	EA	1990
<b><i>Transformers, Interior Mount</i></b>			
3 Phase – 150 kVA	11	EA	1985
3 Phase – 225 kVA	14	EA	1985
3 Phase – 300 kVA	3	EA	1985
3 Phase – 500 kVA	10	EA	1985
3 Phase – 750 kVA	14	EA	1985
3 Phase – 1000 kVA	3	EA	1985
3 Phase – 1500 kVA	2	EA	1985
3 Phase – 2000 kVA	3	EA	1985
<b><i>Services</i></b>			
3 Phase	108	EA	1981
1 Phase	43	EA	1981
<b><i>Street/Security Lights</i></b>			
Fixtures	99	EA	1976
Poles	99	EA	1976
Conductor – Overhead	2.60	MI	1976
Conductor – Underground	2.73	MI	1976

Component	Quantity	Unit	Approximate Year of Construction
<b>Substations</b>			
12/16/20 MVA Transformers (2)	20	MVA	2000
12.5 kV Circuit Breakers	8	EA	1984
69 kV Structure Buswork	1	EA	1984
15 kV Structure Buswork	1	EA	1981
Notes: EA = each MVA = megavolt ampere MI = miles SF = square feet			
kVar = kV = kilovolt kVA = kilovolt ampere OCB = oil circuit breaker			

### J1.2.2 Electrical Distribution System Non-Fixed Equipment and Specialized Tools

**Table 3** lists other ancillary equipment (spare parts), and **Table 4** lists specialized vehicles and tools included in the purchase. Offerors shall field-verify all equipment, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools. The successful Contractor shall provide any and all equipment, vehicles, and tools, whether included in the purchase or not, to maintain a fully operating system under the terms of this contract.

**TABLE 3**  
 Spare Parts  
*Electrical Distribution System - Tobyhanna Army Depot, Pennsylvania*

Quantity	Item	Make/Model	Description	Remarks
Tobyhanna Army Depot maintains an inventory of spare parts for the electrical distribution system. Contents of the inventory vary as items are used and/or purchased. Availability of this inventory to the new owner will be negotiated before or during the transition period.				

**TABLE 4**  
 Specialized Vehicles and Tools  
*Electrical Distribution System - Tobyhanna Army Depot, Pennsylvania*

Quantity	Item	Make/Model	Description	Remarks
No specialized vehicles or tools are included with the Tobyhanna Army Depot electrical distribution system.				



### J1.2.3 Electrical Distribution System Manuals, Drawings, and Records

**Table 5** lists the manuals, drawings, and records that will be transferred with the system.

**TABLE 5**  
 Manuals, Drawings, and Records  
*Electrical Distribution System - Tobyhanna Army Depot, Pennsylvania*

Quantity	Item	Description	Remarks
		Tobyhanna Army Depot maintains a limited collection of technical manuals, drawings, and records on the installed components of the electrical distribution system. This information will be transferred to the new owner during the transition period. System maps will be available in the bidder's library.	

## J1.3 Specific Service Requirements

The service requirements for the Tobyhanna Army Depot electrical distribution system are as defined in Paragraph C, *Description/Specifications/Work Statement*. The following requirements are specific to the TYAD electrical distribution system and are in addition to those found in Paragraph C. If there is a conflict between requirements described below and Paragraph C, the requirements listed below take precedence over those found in Paragraph C.

### J1.3.1 Digging Permits

#### J1.3.1.1 Contractor-Provided Permits

Contractor shall participate in the Tobyhanna Army Depot Department of Public Works (DPW) digging permit process. The Contractor shall complete the section of the application that may impact on the integrity of his utility systems and the safety of the requestors and return it to the Tobyhanna Army Depot DPW within 3 working days of receipt of the digging request. As part of this process, the Contractor shall routinely accept and process digging permit requests from Government work force; military units; RCI partnership; maintenance, construction, and Army operations contractors; cable and phone maintenance and installation companies; fence rental companies; individual residents, and additional entities as identified by Contracting Officer to have a valid need for a digging permit. Contractor shall identify methodology of accepting, processing, approving, and listing reason(s) for disapproval. Contractor shall be responsible for all repairs, costs, and damages due to excavations by others for which he did not properly mark his utilities as part of the DPW digging permit process.

#### J1.3.1.2 Tobyhanna Army Depot-Provided Permits

The Contractor shall first obtain digging permits directly from DPW for utilities owned by the Government before any drilling, digging, or excavation is undertaken. The Contractor shall provide a completed request for permit to the Tobyhanna Army Depot DPW for each permit not earlier than 15 days and not later than 5 days prior to the requested digging date. A digging permit for a specified area of excavation expires 30 days after the issue date; Contractor must re-apply for a new permit to perform excavation in the area if the excavation was not started within the 30-day period. Permits will identify all underground utilities within 1.5 m (5 feet) of the designated area. Contractor shall be responsible for all repairs, costs, and damages due to his excavations that fail to

comply with the DPW digging permit process, including excavations extending beyond areas that have been cleared for excavation.

### **J1.3.2 Inspection and Maintenance Program**

The Contractor shall develop and implement a system inspection and maintenance program to assure continued operation of the electrical distribution system IAW the National Electrical Safety Code and the National Electrical Code. The Contractor shall determine which switches and protective devices are necessary to control the distribution of electrical energy, respond to outages and emergency situations, isolate the system, restore electrical service, and otherwise as necessary to meet the requirements of this contract. The Government reserves the right to review the Contractor's system maintenance records.

### **J1.3.3 Emergency Response**

The Contractor shall respond with a knowledgeable individual to emergency problems within 15 minutes of notification during duty hours and within one hour during non-duty hours. Additionally, repair crews must be on scene within one hour during duty hours and within two hours during non-duty hours. Duty hours are defined as the hours from 0730 until 1630.

### **J1.3.4 Meters**

The Contractor shall operate, maintain, and calibrate all secondary meters, IAW applicable standards and regulations. The Government reserves the right to review the Contractor's meter and maintenance and calibration records.

#### **J1.3.4.1 Meter Reading**

Tobyhanna Army Depot currently reads meters manually. The Contractor shall read meters each month as defined in Paragraph J1.5.

### **J1.3.5 Fire Control and Safety**

The Contractor shall abide by Tobyhanna Army Depot fire protection requirements. The utility system purchased by the Contractor may include facilities. These facilities may or may not include fire alarm systems. Where required by federal, state or local regulation, the Contractor shall maintain the fire alarm system for all facilities owned and operated by the Contractor. The Contractor shall permit Fire Department personnel access to their facilities to perform fire inspections and emergency response.

### **J1.3.6 Restricted Access**

The Contractor shall coordinate with and obtain written approval from Tobyhanna Army Depot for restricted area access.

### **J1.3.7 Crisis Situations**

IAW Paragraph C.9.8, *Exercises and Crisis Situations Requiring Utility Support*, the Contractor shall provide support as directed by Tobyhanna Army Depot DPW or equivalent agency for exercises and crisis situations. Contractor shall submit Emergency Response Plans for approval by the Government for all Exercise and Crisis situations IAW C.9.8.

## J1.4 Current Service Arrangement

Tobyhanna Army Depot purchases its electric power requirements from PPL under its LP5 tariff rates.

## J1.5 Secondary Metering

Between the point of delivery and the end-user points of demarcation, the Contractor shall own the existing meters, and shall install additional meters at new and upgraded locations as directed by the Contracting Officer. Contractor shall install or cause to have installed utility meters as requested by the Contracting Officer to include accessories that will ensure compatibility with the approved data capturing system as approved by the Contracting Officer.

### J1.5.1 Existing Meters

**Table 6** lists the existing (at the time of contract award) meters that will be transferred to the Contractor. The Contractor shall provide meter readings for all secondary meters IAW Paragraph C.3.3, *Metering*, and J1.6, *Monthly Submittals*.

**TABLE 6**  
 Existing Secondary Meters  
*Electrical Distribution System - Tobyhanna Army Depot, Pennsylvania*

Facility	Building No.
There are currently 133 electric meters at Tobyhanna Army Depot, 94 of which register both demand (kW) and energy (kWh). A list of these meters will be included in the Technical Library.	

### J1.5.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 7**. New secondary meters shall be installed IAW Paragraphs C.3.3.1, *Future Meters*, and C.13, *Operational Transition Plan*. After installation, the Contractor shall maintain and read these meters IAW Paragraphs C.3.3, *Metering*, and J1.6 below.

**TABLE 7**  
 New Secondary Meters  
*Electrical Distribution System - Tobyhanna Army Depot, Pennsylvania*

Facility	Building No.
TYAD has identified 36 additional locations that will require the installation of demand meters. A listing of the locations will be included in the Technical Library.	

## J1.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. **Invoice** (IAW Paragraph G.2, *Submission and Payment of Invoices*). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. The Contractor's monthly invoice shall include segregated costs IAW with each CLIN. Costs shall be segregated into two categories: costs associated with Housing areas and costs associated with non-Housing areas. The Contractor shall provide sufficient supporting documentation with each monthly invoice to substantiate all costs included in the invoice for each CLIN as approved by the Contracting officer. The proposed system of accounts shall be made available in electronic format as directed by the Contracting Officer. Invoices shall be submitted by the 25<sup>th</sup> of each month for the previous month. Invoices shall be submitted to:

*Name:* DIRECTORATE OF PUBLIC WORKS  
ATTN: AMSEL-TY (Mr. John Billack)  
*Address:* 11 Hap Arnold Blvd.  
Tobyhanna Army Depot, Pennsylvania 18466-5078  
*Phone number:* (570) 895-9045

2. **Outage Report.** The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25<sup>th</sup> of each month for the previous month. Outage reports shall be submitted to:

*Name:* DIRECTORATE OF PUBLIC WORKS  
ATTN: AMSEL-TY (Mr. John Billack)  
*Address:* 11 Hap Arnold Blvd.  
Tobyhanna Army Depot, Pennsylvania 18466-5078  
*Phone number:* (570) 895-9045

3. **Meter Reading Report.** The monthly meter reading report shall show the current and previous month's readings for all secondary meters. The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15<sup>th</sup> of each month for the previous month. Meter reading reports shall be submitted to:

*Name:* DIRECTORATE OF PUBLIC WORKS  
ATTN: AMSEL-TY (Mr. John Billack)  
*Address:* 11 Hap Arnold Blvd.  
Tobyhanna Army Depot, Pennsylvania 18466-5078  
*Phone number:* (570) 895-9045

## J1.7 Energy and Water Efficiency and Conservation Projects

IAW Paragraph C.3.4, *Energy and Water Efficiency and Conservation*, the following projects have been implemented by the Government for conservation purposes.

- There are no energy savings projects associated with the utility system being privatized.

## J1.8 Service Area

IAW Paragraph C.4, *Service Area*, the service area is defined as all areas within the Tobyhanna Army Depot boundaries.

## J1.9 Off-Installation Sites

No off-installation sites are included in the privatization of the Tobyhanna Army Depot electrical distribution system.

## J1.10 Specific Transition Requirements

IAW Paragraph C.13, *Operational Transition Plan*, **Table 8** provides a list of service connections and disconnections required upon transfer.

**TABLE 8**  
Service Connections and Disconnections  
*Electrical Distribution System - Tobyhanna Army Depot, Pennsylvania*

Location	Description
There are no service connections or disconnections required upon transfer of the Tobyhanna Army Depot electrical distribution system.	

## J1.11 Government Recognized System Deficiencies

**Table 9** provides a list of Government recognized deficiencies. The deficiencies listed may be physical deficiencies, functional deficiencies, or operational in nature. If the utility system is sold, the Government will not accomplish a remedy for the recognized deficiencies listed. The Offeror shall make a determination as to its actual need to accomplish and the timing of any and all such deficiency remedies.

Physical and functional deficiencies may require capital to be invested in the system. If any deficiency remedy requires a capital upgrade project, the capital upgrade project shall be proposed according to the following:

- Capital upgrade projects required to bring the system to standard shall be proposed under Schedule 3 – Initial Capital Upgrade(s)/Connection Charge(s).
- Capital upgrade projects required to replace system components shall be proposed in the first years of Schedule 2 – Renewals and Replacements – 50-Year Schedule, and the cost

factored into Schedule 1 – Fixed Monthly Charge, for Renewals and Replacements as part of CLIN AA.

- Transition costs shall be proposed as a one-time cost and shall be treated similar to a capital project and included in Schedule 3 – Initial Capital Upgrade(s)/Connection Charge(s).
- Improvements proposed in the operational component of the work shall be included in Schedule 1 – Fixed Monthly Charge as part of CLIN AA.

**TABLE 9**  
 System Deficiencies  
*Electrical Distribution System - Tobyhanna Army Depot, Pennsylvania*

<b>System Component</b>	<b>Deficiency Description</b>	<b>Type of Project</b>
Meters	12 of the existing demand meters are inoperative and will require immediate replacement.	Initial Capital Upgrade
Substation	Offeror will propose an upgrade project to increase the capacity of the circuit exits at the substation so that during maintenance and emergencies the entire TYAD load can be provided by a single substation transformer.	Initial Capital Upgrade